

CLAIMS

1. A noncontact sensor comprising a container including a container main body having an opening portion at one side and an insulative lid member that hermetically seals said opening portion of said container main body, and a voltage sensor disposed in said container in the way in which a lid member side is opposed to an electrically charged portion of an overhead wire line, being insulated from the earth, and detecting a voltage that is induced in a plate electrode due to a spatial charge between said electrically charged portion and the plate electrode within said container,

characterized in that said lid member is a water-repellent resin.

2. A noncontact sensor comprising a container including a container main body having an opening portion at one side and an insulative lid member that hermetically seals said opening portion of said container main body, and a voltage sensor disposed in said container in the way in which a lid member side is opposed to an electrically charged portion of an overhead wire line, being insulated from the earth, detecting a voltage that is induced in a plate electrode due to a spatial charge between said electrically charged portion and the plate electrode within said container,

characterized in that said lid member has a structure in which a water-repellent layer constructed using a water-repellent resin is provided on the whole or a part of its at least exposed surface.

3. The noncontact sensor according to claim 2, wherein said water-repellent layer is formed with the use of a coating technique.

4. The noncontact sensor according to claim 2, wherein that said

water-repellent layer is formed by adhering a sheet-like member or plate-like member consisting of said water-repellent resin.

5. The noncontact sensor according to any of claims 1 to 4, wherein said water-repellent resin is fluorine resin or silicone resin.

6. The noncontact sensor according to claim 5, wherein said lid member is designed in the way in which its peripheral edge is outwardly extended from a joined portion thereof to said container main body.

7. The noncontact sensor according to according to claim 5, wherein said lid member further includes one, or two or more, consecutively protruding rib portions and/or groove portions.

8. A noncontact sensor comprising a container that is equipped with a container main body constructed in the way in which a surface excluding a detection surface opposed to an electrically charged portion of an overhead wire line is electro-magnetically shielded and a voltage sensor that is disposed in said container in the way in which said detection surface is opposed to the electrically charged portion of the overhead wire line, said voltage sensor being insulated from the earth to detect a voltage that is induced in a plate electrode due to a spatial charge between said electrically charged portion and the plate electrode within said container,

characterized in that said detection surface has a structure in which a water-repellent layer constructed using a water-repellent resin is provided on the whole or a part of its at least exposed surface.

9. The noncontact sensor according to claim 8, wherein said water-repellent resin is fluorine resin or silicone resin.

10. The noncontact sensor according to claim 8 or 9, wherein said detection surface further includes one, or two or more, consecutively protruding rib portions and/or groove portions.